In the Claims:

Sub

(New) 19. A method for implementing a Java Debug Wire Protocol (JDWP) for communication between a Java debugger application and a Virtual Machine, the method comprising:

inputting a formal specification written in JDWP specification language into a code generator;

parsing the formal specification;

generating a Java front-end debugger program portion from the formal specification after the parsing of the formal specification, the Java front-end debugger program running on a first virtual Machine;

generating a back-end Java debugger program portion from the formal specification, the back-end Java debugger program portion capable of controlling and communicating with a second Virtual machine, and

wherein the Java front-end debugger program and Java back-end debugger program are compatible with each other.